

Abstract of the Disclosure

The subject invention provides materials and methods for the detection and bioremediation of metals from the environment. Specifically, the subject invention provides polynucleotides and polypeptides that bind to a variety of metals. The subject invention provides

5 transgenic plants containing polypeptides according to the subject invention as well as vectors and genetic constructs that provide polypeptides, or fragments thereof, that are capable of binding various metals that can be found in the environment or at contaminated sites.